

SEQUENCE LISTING

<110> Friddle, Carl Johan
Hilbun, Erin
Nepomnichy, Boris
Hu, Yi

<120> Novel Human Kinase Proteins and Polynucleotides Encoding the Same

<130> LEX-0227-USA

<150> US 60/229,280

<151> 2000-08-31

<160> 10

<170> FastSEQ for Windows Version 4.0

```
<210> 1
<211> 2052
<212> DNA
<213> homo sapiens
```

cagactgttag ctgctgtggg aaacaggagg cagtggatg gaggagcgcc tcagactctg	1920
ctgcagatga tggcagtggc cgacatcacc tccacctgcc ccacggggcc tgacagttag	1980
tctgtgctta gcgtcagtgc tcaggaagg aagaccaagg acccgtacag cccagtgtc	2040
atcctgtatgt ga	2052

<210> 2
<211> 683
<212> PRT
<213> homo sapiens

<400> 2	
Met Asp Lys Tyr Asp Val Ile Lys Ala Ile Gly Gln Gly Ala Phe Gly	
1 5 10 15	
Lys Ala Tyr Leu Ala Lys Gly Lys Ser Asp Ser Lys His Cys Val Ile	
20 25 30	
Lys Glu Ile Asn Phe Glu Lys Met Pro Ile Gln Glu Lys Glu Ala Ser	
35 40 45	
Lys Lys Glu Val Ile Leu Leu Glu Lys Met Lys His Pro Asn Ile Val	
50 55 60	
Ala Phe Phe Asn Ser Phe Gln Glu Asn Gly Arg Leu Phe Ile Val Met	
65 70 75 80	
Glu Tyr Cys Asp Gly Gly Asp Leu Met Lys Arg Ile Asn Arg Gln Arg	
85 90 95	
Gly Val Leu Phe Ser Glu Asp Gln Ile Leu Gly Trp Phe Val Gln Ile	
100 105 110	
Ser Leu Gly Leu Lys His Ile His Asp Arg Lys Ile Leu His Arg Asp	
115 120 125	
Ile Lys Ala Gln Asn Ile Phe Leu Ser Lys Asn Gly Met Val Ala Lys	
130 135 140	
Leu Gly Asp Phe Gly Ile Ala Arg Val Leu Asn Asn Ser Met Glu Leu	
145 150 155 160	
Ala Arg Thr Cys Ile Gly Thr Pro Tyr Tyr Leu Ser Pro Glu Ile Cys	
165 170 175	
Gln Asn Lys Pro Tyr Asn Asn Lys Thr Asp Ile Trp Ser Leu Gly Cys	
180 185 190	
Val Leu Tyr Glu Leu Cys Thr Leu Lys His Pro Phe Glu Gly Asn Asn	
195 200 205	
Leu Gln Gln Leu Val Leu Lys Ile Cys Gln Ala His Phe Ala Pro Ile	
210 215 220	
Ser Pro Gly Phe Ser Arg Glu Leu His Ser Leu Ile Ser Gln Leu Phe	
225 230 235 240	
Gln Val Ser Pro Arg Asp Arg Pro Ser Ile Asn Ser Ile Leu Lys Arg	
245 250 255	
Pro Phe Leu Glu Asn Leu Ile Pro Lys Tyr Leu Thr Pro Glu Val Ile	
260 265 270	
Gln Glu Glu Phe Ser His Met Leu Ile Cys Arg Ala Gly Ala Pro Ala	
275 280 285	
Ser Arg His Ala Gly Lys Val Val Gln Lys Cys Lys Ile Gln Lys Val	
290 295 300	
Arg Phe Gln Gly Lys Cys Pro Pro Arg Ser Arg Ile Ser Val Pro Ile	
305 310 315 320	
Lys Arg Asn Ala Ile Leu His Arg Asn Glu Trp Arg Pro Pro Ala Gly	
325 330 335	
Ala Gln Lys Ala Arg Ser Ile Lys Met Ile Glu Arg Pro Lys Ile Ala	
340 345 350	
Ala Val Cys Gly His Tyr Asp Tyr Tyr Ala Gln Leu Asp Met Leu	

355	360	365
Arg Arg Arg Ala His Lys Pro Ser Tyr His Pro Ile Pro Gln Glu Asn		
370	375	380
Thr Gly Val Glu Asp Tyr Gly Gln Glu Thr Arg His Gly Pro Ser Pro		
385	390	395
Ser Gln Trp Pro Ala Glu Tyr Leu Gln Arg Lys Phe Glu Ala Gln Gln		
405	410	415
Tyr Lys Leu Lys Val Glu Lys Gln Leu Gly Leu Arg Pro Ser Ser Ala		
420	425	430
Glu Pro Asn Tyr Asn Gln Arg Gln Glu Leu Arg Ser Asn Gly Glu Glu		
435	440	445
Pro Arg Phe Gln Glu Leu Pro Phe Arg Lys Asn Glu Met Lys Glu Gln		
450	455	460
Glu Tyr Trp Lys Gln Leu Glu Glu Ile Arg Gln Gln Tyr His Asn Asp		
465	470	475
Met Lys Glu Ile Arg Lys Lys Met Gly Arg Glu Pro Glu Glu Asn Ser		
485	490	495
Lys Ile Ser His Lys Thr Tyr Leu Val Lys Lys Ser Asn Leu Pro Val		
500	505	510
His Gln Asp Ala Ser Glu Gly Glu Ala Pro Val Gln Asp Ile Glu Lys		
515	520	525
Asp Leu Lys Gln Met Arg Leu Gln Asn Thr Lys Glu Ser Lys Asn Pro		
530	535	540
Glu Gln Lys Tyr Lys Ala Lys Lys Gly Val Lys Phe Glu Ile Asn Leu		
545	550	555
Asp Lys Cys Ile Ser Asp Glu Asn Ile Leu Gln Glu Glu Glu Ala Met		
565	570	575
Asp Ile Pro Asn Glu Thr Leu Thr Phe Glu Asp Gly Met Lys Phe Lys		
580	585	590
Glu Tyr Glu Cys Val Lys Glu His Gly Asp Tyr Thr Asp Lys Ala Phe		
595	600	605
Glu Lys Leu His Cys Pro Glu Ala Gly Phe Ser Thr Gln Thr Val Ala		
610	615	620
Ala Val Gly Asn Arg Arg Gln Trp Asp Gly Gly Ala Pro Gln Thr Leu		
625	630	635
Leu Gln Met Met Ala Val Ala Asp Ile Thr Ser Thr Cys Pro Thr Gly		
645	650	655
Pro Asp Ser Glu Ser Val Leu Ser Val Ser Arg Gln Glu Gly Lys Thr		
660	665	670
Lys Asp Pro Tyr Ser Pro Val Leu Ile Leu Met		
675	680	

<210> 3
 <211> 1965
 <212> DNA
 <213> homo sapiens

<400> 3

atggataagt acgatgtgat taaggccatc gggcaaggtg ccttcgggaa agcatactta	60
gctaaaggga aatcagatag caagcactgt gtcataaaaag agatcaattt tgaaaaagatg	120
cccatacaag aaaaagaagc ttcaaagaaa gaagtgattc ttctggaaaa gatgaaaacat	180
cccaacattg tagccttctt caattcattt caagagaatg gcaggctgtt tattgtaatg	240
gaatattgtg atggagggga tctcatgaaa agatcaata gacaacgggg tgtgttattt	300
agtgaagatc agatcctcggtt tggtttgtt cagatttctc taggactaaa acatattcat	360
gacaggaaga tattcacacag ggacataaaa gctcagaaca tttttcttag caagaacggaa	420
atggtgccaa agcttgggaa ctgggtata gcaagagtcc tgaataattc catggactt	480

gctcgaaactt gtattggAAC accttactac ctgtccccAG agatctgtCA gaataaACCC
 tacaacaATA aaacggatat ttggTCTtT ggctgtgtCT tatATGAGCT ctgcacACTT
 aaacatCCTT ttgagggtAA caacttACAG cagctggTC tgaAGATTG tcaAGCACAT
 tttccccCAA tatCTCCGGG gTTTCTCGT gagCTCCATT CCTTGATATC tcagCTCTT
 caagtatCTC ctcgagACC accatCCATA aattCCATT tgAAAAGGCC CTTTtagAG
 aatCTTATTC ccaaATAATTG gactCCTGAG gTCATTcAGG aagaATTcAG tcACATGCTT
 atATGcAGAG caggAGcGC AGCTTCTCGA catGCTGGGA agGTGGTCCA gaAGTGTAAA
 atACAaaaAG tgAGATTCCA gggAAAGTGC ccACCAAGAT CAAGGATATC tGTGccaATT
 AAAAGGAATG CTATATTGCA tagAAATGAA tggAGACCAC cAGCTGGAGC ccAGAAGGCC
 agatCTATAA AAATGATAGA aAGACCCAA ATTGCTGCTG TCTGTGGACA TTATGATTAT
 tATTATGCTC AACTTGATAT GCTGAGGAGG AGAGCCACA AACCAAGTTA TCACCCATT
 CCTCAAGAAA ATACTGGAGT TGAGGATTAC ggtcAGGAAA CGAGGATGG TCCATCCCCA
 AGTCAATGGC CTGCTGAGTA CCTTCAGAGA AAATTGAAAG CTCAACAAATA TAAGTTGAAA
 GTGGAGAAGC AATTGGTCT TCgtCCATCT TCTGCCAGC CAAATTACAA CCAGAGACAA
 gagCTAAGAA gtaATGGAGA AGAGCCTAGA TTCCAGGAGC TGCCATTAG gaaaaACGAA
 ATGAAGGAAC aggAGGAACTC AAAAATAAGT CATAAAACCT ATTGGTGAA GAAGAGTAAC
 CTGCTGTCC ATCAAGATGC ATCTGAGGGA GAAGCACCTG TGcAGGACAT TGAAAAGAC
 TTGAAACAAA TGAGGCTCA GAACACAAAG GAAAGTAAAA ATCCAGAAAC GAAATATAAA
 GCTAAGAAGG GGGTAAAATT TGAAATTAAAT TTAGACAAAT GTATTCTGA TGAAAACATC
 CTCCAAGAGG AAGAGGCAAT GGATATACCA AATGAAACTT TGACCTTGA GGATGGCATG
 AAGTTAAGG AATATGAATG TGAAAGGAG CATGGAGATT ATACAGACAA AGCATTGAA
 AAACttCACT GCCAGAAAGC AGGGTTTCC ACAGCAGACTG TAGCTGCTGT GGGAAACAGG
 AGGCAGTGGG ATGGAGGAGC GCCTCAGACT CTGCTGCAGA TGATGGCAGT GGCGACATC
 ACCTCCACCT GCCCACGGG GCCTGACAGT GAGTCTGTG TTAGCGTCAG TCgtCAGGAA
 gggAAGACCA AGGACCCGTA CAGCCCAGTG CTCATCCTGA TGTGA 1965

<210> 4
 <211> 654
 <212> PRT
 <213> homo sapiens

<400> 4
 Met Asp Lys Tyr Asp Val Ile Lys Ala Ile Gly Gln Gly Ala Phe Gly
 1 5 10 15
 Lys Ala Tyr Leu Ala Lys Gly Lys Ser Asp Ser Lys His Cys Val Ile
 20 25 30
 Lys Glu Ile Asn Phe Glu Lys Met Pro Ile Gln Glu Lys Glu Ala Ser
 35 40 45
 Lys Lys Glu Val Ile Leu Leu Glu Lys Met Lys His Pro Asn Ile Val
 50 55 60
 Ala Phe Phe Asn Ser Phe Gln Glu Asn Gly Arg Leu Phe Ile Val Met
 65 70 75 80
 Glu Tyr Cys Asp Gly Gly Asp Leu Met Lys Arg Ile Asn Arg Gln Arg
 85 90 95
 Gly Val Leu Phe Ser Glu Asp Gln Ile Leu Gly Trp Phe Val Gln Ile
 100 105 110
 Ser Leu Gly Leu Lys His Ile His Asp Arg Lys Ile Leu His Arg Asp
 115 120 125
 Ile Lys Ala Gln Asn Ile Phe Leu Ser Lys Asn Gly Met Val Ala Lys
 130 135 140
 Leu Gly Asp Phe Gly Ile Ala Arg Val Leu Asn Asn Ser Met Glu Leu
 145 150 155 160
 Ala Arg Thr Cys Ile Gly Thr Pro Tyr Tyr Leu Ser Pro Glu Ile Cys
 165 170 175
 Gln Asn Lys Pro Tyr Asn Asn Lys Thr Asp Ile Trp Ser Leu Gly Cys
 180 185 190

Val Leu Tyr Glu Leu Cys Thr Leu Lys His Pro Phe Glu Gly Asn Asn
 195 200 205
 Leu Gln Gln Leu Val Leu Lys Ile Cys Gln Ala His Phe Ala Pro Ile
 210 215 220
 Ser Pro Gly Phe Ser Arg Glu Leu His Ser Leu Ile Ser Gln Leu Phe
 225 230 235 240
 Gln Val Ser Pro Arg Asp Arg Pro Ser Ile Asn Ser Ile Leu Lys Arg
 245 250 255
 Pro Phe Leu Glu Asn Leu Ile Pro Lys Tyr Leu Thr Pro Glu Val Ile
 260 265 270
 Gln Glu Glu Phe Ser His Met Leu Ile Cys Arg Ala Gly Ala Pro Ala
 275 280 285
 Ser Arg His Ala Gly Lys Val Val Gln Lys Cys Lys Ile Gln Lys Val
 290 295 300
 Arg Phe Gln Gly Lys Cys Pro Pro Arg Ser Arg Ile Ser Val Pro Ile
 305 310 315 320
 Lys Arg Asn Ala Ile Leu His Arg Asn Glu Trp Arg Pro Pro Ala Gly
 325 330 335
 Ala Gln Lys Ala Arg Ser Ile Lys Met Ile Glu Arg Pro Lys Ile Ala
 340 345 350
 Ala Val Cys Gly His Tyr Asp Tyr Tyr Tyr Ala Gln Leu Asp Met Leu
 355 360 365
 Arg Arg Arg Ala His Lys Pro Ser Tyr His Pro Ile Pro Gln Glu Asn
 370 375 380
 Thr Gly Val Glu Asp Tyr Gly Gln Glu Thr Arg His Gly Pro Ser Pro
 385 390 395 400
 Ser Gln Trp Pro Ala Glu Tyr Leu Gln Arg Lys Phe Glu Ala Gln Gln
 405 410 415
 Tyr Lys Leu Lys Val Glu Lys Gln Leu Gly Leu Arg Pro Ser Ser Ala
 420 425 430
 Glu Pro Asn Tyr Asn Gln Arg Gln Glu Leu Arg Ser Asn Gly Glu Glu
 435 440 445
 Pro Arg Phe Gln Glu Leu Pro Phe Arg Lys Asn Glu Met Lys Glu Gln
 450 455 460
 Glu Asn Ser Lys Ile Ser His Lys Thr Tyr Leu Val Lys Lys Ser Asn
 465 470 475 480
 Leu Pro Val His Gln Asp Ala Ser Glu Gly Glu Ala Pro Val Gln Asp
 485 490 495
 Ile Glu Lys Asp Leu Lys Gln Met Arg Leu Gln Asn Thr Lys Glu Ser
 500 505 510
 Lys Asn Pro Glu Gln Lys Tyr Lys Ala Lys Lys Gly Val Lys Phe Glu
 515 520 525
 Ile Asn Leu Asp Lys Cys Ile Ser Asp Glu Asn Ile Leu Gln Glu Glu
 530 535 540
 Glu Ala Met Asp Ile Pro Asn Glu Thr Leu Thr Phe Glu Asp Gly Met
 545 550 555 560
 Lys Phe Lys Glu Tyr Glu Cys Val Lys Glu His Gly Asp Tyr Thr Asp
 565 570 575
 Lys Ala Phe Glu Lys Leu His Cys Pro Glu Ala Gly Phe Ser Thr Gln
 580 585 590
 Thr Val Ala Ala Val Gly Asn Arg Arg Gln Trp Asp Gly Gly Ala Pro
 595 600 605
 Gln Thr Leu Leu Gln Met Met Ala Val Ala Asp Ile Thr Ser Thr Cys
 610 615 620
 Pro Thr Gly Pro Asp Ser Glu Ser Val Leu Ser Val Ser Arg Gln Glu
 625 630 635 640

Gly Lys Thr Lys Asp Pro Tyr Ser Pro Val Leu Ile Leu Met
645 650

<210> 5
<211> 2240
<212> DNA
<213> homo sapiens

<400> 5

ctgtctcatt tcagttatct gtggccacaa ggaaaggat	ttgtctctgt cttggcaagg	60
ctgggaggaa agtttagct aagaaccta gcccatttga gaccatggat aagtacgatg		120
tgattaaggc catcgggcaa ggtgccttcg ggaaaagcata cttagctaaa gggaaatcag		180
atagcaagca ctgtgtcata aaagagatca attttggaaaa gatgcccata caagaaaaag		240
aagcttcaaa gaaagaagtg atttcttctgg aaaagatgaa acatcccaac atttgtgcct		300
tcttcaattc atttcaagag aatggcaggc tttttattgt aatggaatat tgtgtatggag		360
gggatctcat gaaaaggatc aatagacaac ggggtgtgtt atttagtcaa gatcagatcc		420
tcgggttggtt tgtacagatt tctctaggac taaaacatat tcatacagg aagatattac		480
acagggacat aaaagctcag aacattttc ttagcaagaa cggaatggtg gcaaagcttg		540
gggactttgg tatagcaaga gtcctgaata attccatggc acttgctcg acttgtattg		600
gaacacccta ctacctgtcc ccagagatct gtcagaataa accctacaac aataaaacgg		660
atatttggtc tcttggctgt gtcttatatg agctctgcac actttaaacat ctttttgg		720
gttaacaactt acagcagctg gttctgaaga tttgtcaagc acattttgcc ccaatatctc		780
cggggttttc tcgtgagctc cattccttga tatctcagct cttaaagta ttcctctcgag		840
accgaccatc cataaattcc attttggaaaa ggcctttt agagaatctt attcccaaatt		900
atttgactcc tgaggtcatt caggaagaat tcagtcacat gcttatatgc agagcaggag		960
cgcacatc tcgacatgct gggaaagggtgg tccagaagtg taaaatacaa aaagtggagat		1020
tccagggaaa gtgcccacca agatcaagga tatctgtgcc aattaaaagg aatgttat		1080
tgcataaaaa tgaatggaga ccaccagctg gagccccagaa ggccagatct ataaaaatga		1140
tagaaagacc caaaaattgct gctgtctgtg gacattatga ttattattat gctcaacttg		1200
atatgcttag gaggagagcc cacaaccacaa gttatcaccc tattcctcaa gaaaatactg		1260
gagttgagga ttacggtcag gaaacggggc atggccatc cccaaatctt tggcctgtcg		1320
agtacccatca gaaaaattt gaagctcaac aatataagt gaaagtggag aagcaattgg		1380
gtcttcgtcc atcttctgccc gagccaaatt acaaccagag acaagagcta agaagtaatg		1440
gagaagagcc tagattccag gagctgcccattttagaaaaa cggaaatgaa gaacagggaaat		1500
attggaagca gtttagagggaa atacgccaac agtaccacaa tgacatgaaa gaaattagaa		1560
agaagatggg gagagaacca gaggagaact caaaaataag tcataaaacc ttttggta		1620
agaagagtaa cctgcctgtc catcaagatg catctgaggg agaaggcacct gtgcaggaca		1680
ttgaaaaaaa cttgaaacaa atgaggcttc agaacacaaa ggaaaatgaaa aatccagaac		1740
agaaatataa agctaagaag ggggtaaaat ttgaaattaa ttttagacaaa tgtatttctg		1800
atgaaaacat cctccaagag gaagaggcaa tggatatacc aaatgaaact ttgacccctt		1860
aggatggcat gaagtttaag gaatatgaaat gtgtaaagga gcatggagat tatacagaca		1920
aacatttgc aaaaacttcac tgcccagaag cagggttttc cacccagact gtagctgtcg		1980
tggaaacacag gaggcagtgg gatggaggag cgcctcagac tctgctgtcg atgatggcag		2040
tggccgacat cacccatccat tgccccacgg ggcctgacag tgatgtctgt cttagcgtca		2100
gtcgtcagga agggaaagacc aaggacccgtt acagccctgt gctcatcctg atgtgatgt		2160
ctacttctca ctatacaccat tatagatctt gtatcagaca ctttcaaata ttttttttgc		2220
atatctccct ataccaaaaa		2240

<210> 6
<211> 1167
<212> DNA
<213> homo sapiens

<400> 6

atgtttaaaatg tgaagaggctt ggaagaattc aacacgtgtt ataaacagcaa ccagctggag	60
aaaatggcctt ttttcagtg cagggaaagag gtggagaaag tgaagtgttt tctggaaaaaa	120

aattctgggg accaggattc aagatctgga cataatgagg cgaaggaggt gtggtcaaac	180
gccgaccta cgaaaaggat gccgtcaaa agcaaaagga catcagccct cgcatgttgc	240
atccccggctc ctccggcccc atttgatcat cgtattgtga cagccaagca aggagcggtc	300
aacagcttct atactgttag caagacagaa atcctaggag gagggcggtt cggccaggtt	360
cacaagtgtg aggagacggc cacaggtctg aagctggcag caaaaatcat caagaccaga	420
ggcatgaagg acaaggagga ggtgaagaac gagatcagcg tcataaccg gctggaccac	480
gcgaaccta tccagctgta cgatgccttc gagtctaaga acgacattgt cctggatcatg	540
gagtatgtgg atgggggaa gctgtttgac cgcatcatcg atgagagcta caatttgacg	600
gagcttgata ccatacctgtt catgaaggcag atatgtgagg ggataaggca catgcatcg	660
atgtacattc tccacttgga cctgaaggct gagaatatcc ttttgtgaa tcgggatgct	720
aagcaataa aaattattga ttttgattt gccagaagat acaaaccac agagaagctg	780
aaggtaact ttggAACCCC agaatttctc gcccctgaag ttgtgaacta tgattttgtt	840
tcatttccca ctgacatgtg gagtggtggg gtcatcgct atatgtact tagcggttt	900
tcgcctttcc tgggtgacaa tgatgttag acgctgaaca acatcctggc ctgcagggtgg	960
gacttagagg atgaagaatt tcaggacatc tcggaggagg ccaaggagtt catctctaag	1020
cttctgatta aggagaagag ttggcgaata agtgcaagcg aagctctcaa gcacccctgg	1080
ttgtcagacc acaagctcca ctccagactc aatgcccaga agaagaagaa tcgtggctct	1140
gatgccagg actttgtgac caaatag	1167

<210> 7
<211> 388
<212> PRT
<213> homo sapiens

<400> 7
Met Leu Lys Val Lys Arg Leu Glu Glu Phe Asn Thr Cys Tyr Asn Ser
1 5 10 15
Asn Gln Leu Glu Lys Met Ala Phe Phe Gln Cys Arg Glu Glu Val Glu
20 25 30
Lys Val Lys Cys Phe Leu Glu Lys Asn Ser Gly Asp Gln Asp Ser Arg
35 40 45
Ser Gly His Asn Glu Ala Lys Glu Val Trp Ser Asn Ala Asp Leu Thr
50 55 60
Glu Arg Met Pro Val Lys Ser Lys Arg Thr Ser Ala Leu Ala Val Asp
65 70 75 80
Ile Pro Ala Pro Pro Ala Pro Phe Asp His Arg Ile Val Thr Ala Lys
85 90 95
Gln Gly Ala Val Asn Ser Phe Tyr Thr Val Ser Lys Thr Glu Ile Leu
100 105 110
Gly Gly Arg Phe Gly Gln Val His Lys Cys Glu Glu Thr Ala Thr
115 120 125
Gly Leu Lys Leu Ala Ala Lys Ile Ile Lys Thr Arg Gly Met Lys Asp
130 135 140
Lys Glu Glu Val Lys Asn Glu Ile Ser Val Met Asn Gln Leu Asp His
145 150 155 160
Ala Asn Leu Ile Gln Leu Tyr Asp Ala Phe Glu Ser Lys Asn Asp Ile
165 170 175
Val Leu Val Met Glu Tyr Val Asp Gly Gly Glu Leu Phe Asp Arg Ile
180 185 190
Ile Asp Glu Ser Tyr Asn Leu Thr Glu Leu Asp Thr Ile Leu Phe Met
195 200 205
Lys Gln Ile Cys Glu Gly Ile Arg His Met His Gln Met Tyr Ile Leu
210 215 220
His Leu Asp Leu Lys Pro Glu Asn Ile Leu Cys Val Asn Arg Asp Ala
225 230 235 240
Lys Gln Ile Lys Ile Ile Asp Phe Gly Leu Ala Arg Arg Tyr Lys Pro

245	250	255
Arg Glu Lys Leu Lys Val Asn Phe Gly Thr Pro Glu Phe Leu Ala Pro		
260	265	270
Glu Val Val Asn Tyr Asp Phe Val Ser Phe Pro Thr Asp Met Trp Ser		
275	280	285
Val Gly Val Ile Ala Tyr Met Leu Leu Ser Gly Leu Ser Pro Phe Leu		
290	295	300
Gly Asp Asn Asp Ala Glu Thr Leu Asn Asn Ile Leu Ala Cys Arg Trp		
305	310	315
Asp Leu Glu Asp Glu Glu Phe Gln Asp Ile Ser Glu Glu Ala Lys Glu		
325	330	335
Phe Ile Ser Lys Leu Leu Ile Lys Glu Lys Ser Trp Arg Ile Ser Ala		
340	345	350
Ser Glu Ala Leu Lys His Pro Trp Leu Ser Asp His Lys Leu His Ser		
355	360	365
Arg Leu Asn Ala Gln Lys Lys Asn Arg Gly Ser Asp Ala Gln Asp		
370	375	380
Phe Val Thr Lys		
385		

<210> 8
<211> 1197
<212> DNA
<213> homo sapiens

<400> 8	
atgttaaaag tgaaggaggct ggaagaattc aacacgtgtt ataacagcaa ccagctggag	60
aaaatggcct ttttcagtg cagggaaagag gtggagaaag tgaagtgttt tctggaaaaaa	120
aattctgggg accaggattc aagatctgga cataatgagg cgaaggaggt gtggtcaaac	180
gccgaccta cggaaaggat gcccgtcaaa agcaaaagga catagccct cgcagttgac	240
atcccggttc ctccggcccc atttgatcat cgtatttgta cagccaagca aggagcggtc	300
aacagttct atactgtgag caagacagaa atccttaggag gagggcgttt cggccaggtt	360
cacaagtgtg aggagacggc cacaggtctg aagctggcag ccaaaaatcat caagaccaga	420
ggcatgaagg acaaggagga ggtgaagaac gagatcagcg tcatgaacca gctggaccac	480
gcgaacctca tccagctgtc cgatgccttc gagtctaaga acgacattgt cctggatcatg	540
gagtatgtgg atgggtggga gctgtttgac cgcacatcatcg atgagagcta caatttgacg	600
gagcttgata ccacccctgtt catgaagcag atatgtgagg ggataaggca catgcattcag	660
atgtacattc tccacttgga cctgtggcct gagaatatcc tgtgtgtgaa tcgggatgct	720
aagcaaataa aaattattga ttttggattt gccagaagat acaaaccac agagaagctg	780
aaggtaact ttggaaaccc agaatttctc gcccctgaag ttgtgaacta tgatttttt	840
tcattttccca ctgacatgtg gagtgtgggg gtcatcgccct atatgtact tagcggtttg	900
tcgcctttcc tgggtgacaa tggatgtggag acgctgaaca acatccctggc ctgcagggtgg	960
gacttagagg atgaagaatt tcaggacatc tcggaggagg ccaaggagtt catctctaag	1020
cttctgatta aggagaagag ttggcgaata agtgcacgc aagctctcaa gcacccctgg	1080
ttgtcagacc acaagctcca ctccagactc aatgcccagg tgaccacggc ttcttgctct	1140
tcctctttt ctcctgtctg cctgtttt gaagatcaga tgctggagtc atcttaa	1197

<210> 9
<211> 398
<212> PRT
<213> homo sapiens

<400> 9			
Met Leu Lys Val Lys Arg Leu Glu Glu Phe Asn Thr Cys Tyr Asn Ser			
1	5	10	15
Asn Gln Leu Glu Lys Met Ala Phe Phe Gln Cys Arg Glu Glu Val Glu			

20	25	30
Lys Val Lys Cys Phe Leu Glu Lys Asn Ser Gly Asp Gln Asp Ser Arg		
35	40	45
Ser Gly His Asn Glu Ala Lys Glu Val Trp Ser Asn Ala Asp Leu Thr		
50	55	60
Glu Arg Met Pro Val Lys Ser Lys Arg Thr Ser Ala Leu Ala Val Asp		
65	70	75
Ile Pro Ala Pro Pro Ala Pro Phe Asp His Arg Ile Val Thr Ala Lys		
85	90	95
Gln Gly Ala Val Asn Ser Phe Tyr Thr Val Ser Lys Thr Glu Ile Leu		
100	105	110
Gly Gly Arg Phe Gly Gln Val His Lys Cys Glu Glu Thr Ala Thr		
115	120	125
Gly Leu Lys Leu Ala Ala Lys Ile Ile Lys Thr Arg Gly Met Lys Asp		
130	135	140
Lys Glu Glu Val Lys Asn Glu Ile Ser Val Met Asn Gln Leu Asp His		
145	150	155
Ala Asn Leu Ile Gln Leu Tyr Asp Ala Phe Glu Ser Lys Asn Asp Ile		
165	170	175
Val Leu Val Met Glu Tyr Val Asp Gly Gly Glu Leu Phe Asp Arg Ile		
180	185	190
Ile Asp Glu Ser Tyr Asn Leu Thr Glu Leu Asp Thr Ile Leu Phe Met		
195	200	205
Lys Gln Ile Cys Glu Gly Ile Arg His Met His Gln Met Tyr Ile Leu		
210	215	220
His Leu Asp Leu Lys Pro Glu Asn Ile Leu Cys Val Asn Arg Asp Ala		
225	230	235
Lys Gln Ile Lys Ile Ile Asp Phe Gly Leu Ala Arg Arg Tyr Lys Pro		
245	250	255
Arg Glu Lys Leu Lys Val Asn Phe Gly Thr Pro Glu Phe Leu Ala Pro		
260	265	270
Glu Val Val Asn Tyr Asp Phe Val Ser Phe Pro Thr Asp Met Trp Ser		
275	280	285
Val Gly Val Ile Ala Tyr Met Leu Leu Ser Gly Leu Ser Pro Phe Leu		
290	295	300
Gly Asp Asn Asp Ala Glu Thr Leu Asn Asn Ile Leu Ala Cys Arg Trp		
305	310	315
Asp Leu Glu Asp Glu Glu Phe Gln Asp Ile Ser Glu Glu Ala Lys Glu		
325	330	335
Phe Ile Ser Lys Leu Leu Ile Lys Glu Lys Ser Trp Arg Ile Ser Ala		
340	345	350
Ser Glu Ala Leu Lys His Pro Trp Leu Ser Asp His Lys Leu His Ser		
355	360	365
Arg Leu Asn Ala Gln Val Thr Thr Ala Ser Cys Ser Ser Ser Phe Ser		
370	375	380
Pro Val Cys Leu Ser Phe Glu Asp Gln Met Leu Glu Ser Ser		
385	390	395

<210> 10

<211> 1744

<212> DNA

<213> homo sapiens

<400> 10

ctctcgtagt ggacacctgt ctttcagaa gatttatacg actgagagtc aaaactttta
ccagagactt tcatagtcag tttgaattct gcaaaatttc tctttatctt ctggaatgta

60

120

tgctctagac ttggagtgcc tcaagctctt cgatgtgatc ctatcaatgt caagagaaaag	180
aagcactgaa gagtataat tgtgtccctga tttataaaatc ggagacagag ggagacgaaa	240
accacactcc agaaaagtgc ttaatcgac tcactactaa gatgtaaaaa gtgaagaggc	300
tgaaagaatt caacacgtgt tataacagca accagctgga gaaaatggcc ttttttcagt	360
gcagggaaga ggtggagaaa gtgaagtgtt ttctggaaaa aaattctggg gaccaggatt	420
caagatctgg acataatgag gcgaaggagg tgtggtcaaaa cgccgacctg acggaaaagga	480
tgcccgtcaa aagcaaaagg acatcagccc tcgcagttga catcccggt cctccggccc	540
catttgcata tcgtattgtg acagccaaagc aaggagcgtt caacagcttc tatactgtga	600
gcaagacaga aatccttagga ggaggcggt tcggccaggt tcacaagtgt gaggagacgg	660
ccacaggctc gaagctggca gccaaaaatca tcaagaccag aggcatgaag gacaaggagg	720
aggtgaagaa cgagatcgc gtcatgaacc agctggacca cgcaacctc atccagctgt	780
acgatgcctt cgagtctaag aacgacatttgc tcctggcat ggagtatgtg gatgggtgggg	840
agctgtttga ccgcatcatc gatgagagct acaatttgc ggagcttgc accatccctgt	900
tcatgaagca gatatgtgag gggataaggc acatgcata gatgtacatt ctccacttgg	960
acctgaagcc tgagaataatc ctgtgtgtga atcgggatgc taagcaaata aaaattatttgc	1020
atttggatt ggccagaaga tacaaaccca gagagaagct gaaggtgaac ttggAACCC	1080
cagaatttct cgccccgtaa gttgtgaact atgattttgt ttcattttccc actgacatgt	1140
ggagtgtggg ggtcatcgcc tatatgtac ttagcggtt gtcgccttc ctgggtgaca	1200
atgatgctga gacgctgaac aacatcctgg cctgcaggtg ggacttagag gatgaagaat	1260
ttcaggacat ctcggaggag gccaaaggagt tcatctctaa gcttctgatt aaggagaaga	1320
gttggcgaat aagtgcacgc gaagctctca agcaccctcg gttgtcagac cacaagctcc	1380
actccagact caatgcccg aagaagaaga atcgtggctc tgatgcccag gactttgtga	1440
ccaaatagtc tacaggagggc agccatttgg aaggaaaact gctgtggttg ctgctgcctc	1500
gagaaaattt tttgaaaaat cagcagttct gatgccttgc cccctgtat gacctggtag	1560
tcttagcagg gggagccctc gaccctgaat gtgaacttgc actggagtgc ctctgctgcg	1620
ctcagaggaa cacccagcgc tgccgtctgg tctcaggcgc caaacacatc cctgcacccg	1680
gtgggtggta tggtggaaag atgtttccct gccatcttttgc agatttttta cttttttaaa	1740
aaaa	1744